Amendments to the Claims:

The following claims will replace all prior versions of the claims in this application (in the unlikely event that no claims follow herein, the previously pending claims will remain):

1. (Currently Amended) A compound represented by the following Formula 1:

$$Z = \begin{bmatrix} A''_n & X' \\ B''_m & A''_n \\ R'' & A''_n \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ &$$

wherein Z is

Of

n, m, q and r independently represent integers from zero to 4 provided that $n + m \le 4$ and q $+ r \le 4$; p and s independently represent integers from zero to 5 provided that $p + s \le 5$; a, b, and c represent a represents a double bonds bond which may be present or absent; when

present, the double bonds bond may be in the E or Z configuration and, when absent, the resulting stereocenters stereocenter may have the R- or S- configuration;

R and R' each independently represent a hydrogen atom; linear or branched C₁-C₂₀-alkyl; linear or branched C₂-C₂₀-alkenyl; -CO₂Z'; -CO₂R'''; -NH₂; -NHR'''; -OH, -OR'''; CONR₂''''; a halogen atom; optionally substituted linear or branched C₁-C₂₀-alkyl or optionally substituted linear or branched C₂-C₂₀ alkenyl;

R" independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' , - NH_2 , -NHR''', - NR_2''' , -OH, -OR''', a halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl or optionally substituted linear or branched C_2 - C_{20} alkenyl;

R''' independently represents linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; $-(CH_2)_x$ -Ar, where x represents an integer from 1 to 6 and Ar represents aryl;

R'''' independently represent a hydrogen atom; optionally substituted C_I-C₂₀-alkyl; optionally substituted C₁-C₂₀ alkoxy; optionally substituted C₂-C₂₀ alkenyl; optionally substituted C₆-C₁₀ aryl; or NR₂'''' represents a cyclic moiety;

Z' represents a hydrogen atom or a pharmaceutically acceptable counterion;

A, A' and A'' A and A' each independently represent a hydrogen atom; C_1 - C_{20} acylamino; C_1 - C_{20} acyloxy; C_1 - C_{20} alkanoyl; C_1 - C_{20} alkoxycarbonyl; C_1 - C_{20} alkoxy; C_1 - C_{20} alkylamino; C_1 - C_{20} alkylamino; carboxyl; cyano; halo; or hydroxy;

B, B' and B' B and B' each independently represent C_2 - C_{20} alkenoyl; aroyl, aralkanoyl; nitro; optionally substituted, linear or branched C_1 - C_{20} alkyl; or optionally substituted linear or branched C_2 - C_{20} alkenyl;

or A and B jointly, A' and B' jointly, or A" and B" or A' and B' jointly independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR", -O-, or -S-.

2. (Cancelled)

3. A pharmaceutical composition comprising:

a therapeutically effective amount of a compound represented by the following formula 1:

$$Z = \begin{bmatrix} A''_n & X' \\ B''_m & A''_n \\ R'' & A''_n \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

wherein Z is

Of

n, m, q and r independently represent integers from zero to 4 provided that $n + m \le 4$ and $q + r \le 4$; p and s independently represent integers from zero to 5 provided that $p + s \le 5$; a, b, and c represent a represents a double bonds bond which may be present or absent; when present, the double bonds bond may be in the E or Z configuration and, when absent, the resulting stereocenters stereocenter may have the R- or S- configuration;

R and R' each independently represent a hydrogen atom; linear or branched C₁-C₂₀ alkyl; linear or branched C₂-C₂₀ alkenyl; -CO₂Z'; -CO₂R'''; -NH₂; -NHR'''; -OH, -OR'''; CONR₂''''; a halogen atom; optionally substituted linear or branched C₁-C₂₀ alkyl or optionally substituted linear or branched C₂-C₂₀ alkenyl;

R" independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2 Z'; - CO_2 R", - NH_2 , - NH_2 ", - NH_2 ", - OH_2 , - OH_3 , - OH_4 , -OR", \underline{a} halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl or optionally substituted linear or branched C_2 - C_{20} alkenyl;

R" independently represents linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; $-(CH_2)_x$ - Ar_{τ} -where x represents an integer from 1 to 6 and Ar represents aryl;

R"" independently represent a hydrogen atom; optionally substituted C₁ C₂₀ alkyl; optionally substituted C₂ -C₂₀ alkenyl; optionally substituted C₆ -C₄₀ aryl; or NR₂"" represents a cyclic moiety;

Z' represents a hydrogen atom or a pharmaceutically acceptable counterion;

A, A' and A' and A' each independently represent a hydrogen atom; C_1 - C_{20} acylamino; C_1 - C_{20} acyloxy; C_1 - C_{20} alkanoyl; C_1 - C_{20} alkoxycarbonyl; C_1 - C_{20} alkoxy; C_1 - C_{20} alkylamino; C_1 - C_{20} alkylamino; carboxyl; cyano; halo; or hydroxy;

B, B' and B' B and B' each independently represent C_2 - C_{20} alkenoyl; aroyl, aralkanoyl; nitro; optionally substituted, linear or branched C_1 - C_{20} alkyl; or optionally substituted linear or branched C_2 - C_{20} alkenyl;

or A and B jointly, A' and B' jointly, or A" and B" or A' and B' jointly independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR", -O-, or -S-;

in a physiologically acceptable carrier.

4. (Cancelled)

5. (Withdrawn and Currently Amended) A method of treating diabetes comprising: administering to a subject suffering from a diabetic condition, a therapeutically effective amount of a compound represented by the following formula 1:

$$Z = \begin{bmatrix} A''_n & X' \\ B''_m & A''_n \\ R'' & A''_n \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ &$$

wherein Z is

Of

n, m, q and r independently represent integers from zero to 4 provided that $n + m \le 4$ and $q + r \le 4$; p and s independently represent integers from zero to 5 provided that $p + s \le 5$; a, b, and c represent a represents a double bonds bond which may be present or absent; when present, the double bonds bond may be in the E or Z configuration and, when absent, the resulting stereocenters stereocenter may have the R- or S- configuration;

R and R' each independently represent a hydrogen atom; linear or branched C₁-C₂₀ alkyl; linear or branched C₂-C₂₀ alkenyl; -CO₂Z'; -CO₂R'''; -NH₂; -NHR'''; -OH, -OR'''; CONR₂''''; a

halogen atom; optionally substituted linear or branched C_I-C₂₀ alkyl or optionally substituted linear or branched C₂-C₂₀ alkenyl;

R" independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; $-CO_2Z'$; $-CO_2R'''$, $-NH_2$, -NHR''', $-NR_2'''$, -OH, -OR''', \underline{a} halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl or optionally substituted linear or branched C_2 - C_{20} alkenyl;

R" independently represents linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; –(CH₂)_x-Ar,—where x represents an integer from 1 to 6 and Ar represents aryl;

R''' independently represent a hydrogen atom; optionally substituted C₁-C₂₀-alkyl; optionally substituted C₂-C₂₀-alkenyl; optionally substituted C₆-C₁₀ aryl; or NR₂''' represents a cyclic moiety;

Z' represents a hydrogen atom or a pharmaceutically acceptable counterion;

A, A' and A' and A' each independently represent a hydrogen atom; C_1 - C_{20} acylamino; C_1 - C_{20} acyloxy; C_1 - C_{20} alkanoyl; C_1 - C_{20} alkoxycarbonyl; C_1 - C_{20} alkoxy; C_1 - C_{20} alkylamino; C_1 - C_{20} alkylamino; carboxyl; cyano; halo; or hydroxy;

B, B' and B' and B' each independently represent C_2 - C_{20} alkenoyl; aroyl, aralkanoyl; nitro; optionally substituted, linear or branched C_1 - C_{20} alkyl; or optionally substituted linear or branched C_2 - C_{20} alkenyl;

or A and B jointly, A' and B' jointly, or A" and B" or A' and B' jointly independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR", -O-, or -S-;

in a physiologically acceptable carrier.

- 6. (Cancelled).
- 7. (Withdrawn and Currently Amended) A method of treating inflammation or inflammatory disease comprising:

administering to a subject suffering from such condition, a therapeutically effective amount of a compound represented by the following formula 1:

$$Z = \begin{bmatrix} A''_n \\ B''_m \end{bmatrix} X$$

$$R''$$

wherein Z is

er Ap Bs B'r

n, m, q and r independently represent integers from zero to 4 provided that $n + m \le 4$ and $q + r \le 4$; p and s independently represent integers from zero to 5 provided that $p + s \le 5$; a, b, and c represent a represents a double bonds bond which may be present or absent; when present, the double bonds bond may be in the E or Z configuration and, when absent, the resulting stereocenters stereocenter may have the R- or S- configuration;

R and R' each independently represent a hydrogen atom; linear or branched C₁-C₂₀ alkyl; linear or branched C₂-C₂₀ alkenyl; -CO₂Z'; -CO₂R'''; -NH₂; -NHR'''; -OH, -OR'''; CONR₂''''; a

halogen atom; optionally substituted linear or branched C_I-C₂₀ alkyl or optionally substituted linear or branched C₂-C₂₀ alkenyl;

R" independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' , - NH_2 , -NHR''', - NR_2''' , -OH, -OR''', a halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl or optionally substituted linear or branched C_2 - C_{20} alkenyl;

R" independently represents linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; $-(CH_2)_x$ -Ar, where x represents an integer from 1 to 6 and Ar represents aryl;

R'''' independently represent a hydrogen atom; optionally substituted C_I-C₂₀ alkyl; optionally substituted C₂-C₂₀ alkenyl; optionally substituted C₆-C₄₀ aryl; or NR₂'''' represents a cyclic moiety;

Z' represents a hydrogen atom or a pharmaceutically acceptable counterion;

A, A' and A" A and A' each independently represent a hydrogen atom; C_1 - C_{20} acylamino; C_1 - C_{20} acyloxy; C_1 - C_{20} alkanoyl; C_1 - C_{20} alkoxycarbonyl; C_1 - C_{20} alkoxy; C_1 - C_{20} alkylamino; C_1 - C_{20} alkylamino; carboxyl; cyano; halo; or hydroxy;

B, B' and B' and B' each independently represent C_2 - C_{20} alkenoyl; aroyl, aralkanoyl; nitro; optionally substituted, linear or branched C_1 - C_{20} alkyl; or optionally substituted linear or branched C_2 - C_{20} alkenyl;

or A and B jointly, A' and B' jointly, or A" and B" or A' and B' jointly independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR", -O-, or -S-;

in a physiologically acceptable carrier.

- (Cancelled).
- (Withdrawn and Currently Amended) A method of treating immunological disease comprising:

administering to a subject suffering from an immunological disease, a therapeutically effective amount of a compound represented by the following formula 1:

$$Z = \begin{bmatrix} A''_n & X' \\ B''_m & A''_n \\ R'' & A''_n \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

wherein Z is

er

Ap

Ar

B'r

n, m, q and r independently represent integers from zero to 4 provided that $n + m \le 4$ and $q + r \le 4$; p and s independently represent integers from zero to 5 provided that $p + s \le 5$; a, b, and c represent a represents a double bonds bond which may be present or absent; when present, the double bonds bond may be in the E or Z configuration and, when absent, the resulting stereocenters stereocenter may have the R- or S- configuration;

R and R' each independently represent a hydrogen atom; linear or branched C₁-C₂₀ alkyl; linear or branched C₂-C₂₀ alkenyl; -CO₂Z'; -CO₂R'''; -NH₂; -NHR'''; -OH, -OR'''; CONR₂''''; a

halogen atom; optionally substituted linear or branched C₁-C₂₀ alkyl or optionally substituted linear or branched C₂-C₂₀ alkenyl;

R" independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2 Z'; - CO_2 R", -NH₂, -NHR", -NR₂", -OH, -OR", <u>a</u> halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl or optionally substituted linear or branched C_2 - C_{20} alkenyl;

R"' independently represents linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; $-(CH_2)_x$ -Ar,—where x represents an integer from 1 to 6 and Ar represents aryl;

R"" independently represent a hydrogen atom; optionally substituted C_I-C₂₀ alkyl; optionally substituted C₂-C₂₀ alkenyl; optionally substituted C₆-C₁₀ aryl; or NR₂"" represents a cyclic moiety;

Z' represents a hydrogen atom or a pharmaceutically acceptable counterion;

A, A' and A'' A and A' each independently represent a hydrogen atom; C_1 - C_{20} acylamino; C_1 - C_{20} acyloxy; C_1 - C_{20} alkanoyl; C_1 - C_{20} alkoxycarbonyl; C_1 - C_{20} alkoxy; C_1 - C_{20} alkylamino; C_1 - C_{20} alkylamino; carboxyl; cyano; halo; or hydroxy;

B, B' and B' B and B' each independently represent C_2 - C_{20} alkenoyl; aroyl, aralkanoyl; nitro; optionally substituted, linear or branched C_1 - C_{20} alkyl; or optionally substituted linear or branched C_2 - C_{20} alkenyl;

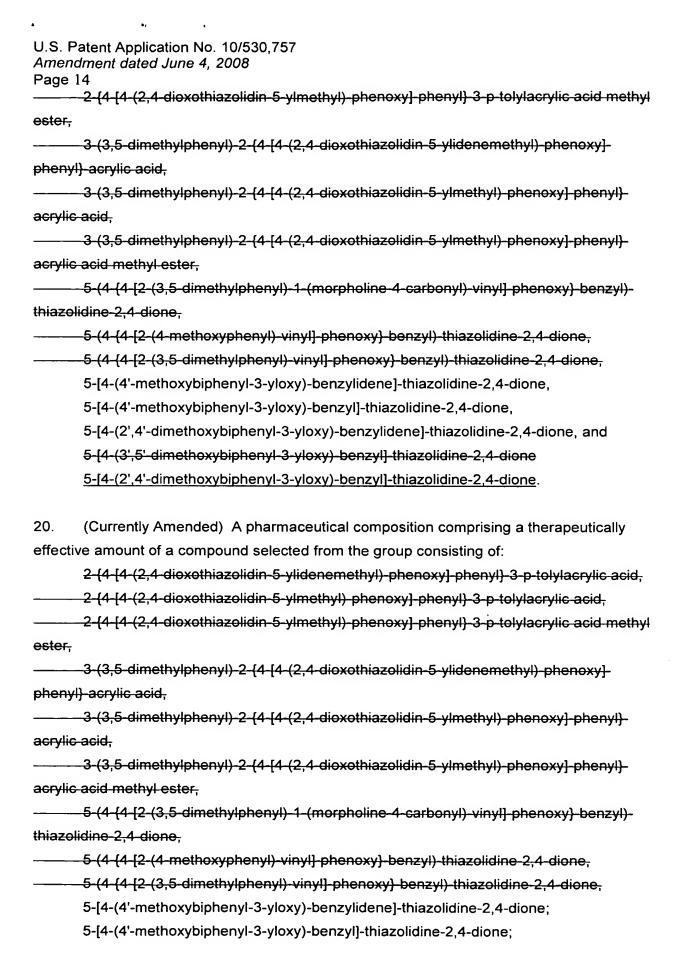
or A and B jointly, A' and B' jointly, or A" and B" or A' and B' jointly independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR", -O-, or -S-;

in a physiologically acceptable carrier.

10. (Cancelled)

- 11. (Withdrawn and Currently Amended) A method of inhibiting the activity of TNF-alpha, IL-1, IL-6 or COX-2 which comprises administering to a host in need of such inhibition an effective amount of a compound according to claim 1 or claim 2.
- 12. (Withdrawn and Currently Amended) The method of inhibiting the undesired action of cytokine cytokines or cyclooxygenase which comprises administering to a host in need of such inhibition an effective amount of a compound according to claim 1 or claim 2.
- 13. (Withdrawn and Currently Amended) The method of treating a disease mediated by cytokines or cyclooxygenase which comprises administering to a host in need of such treatment a compound according to claim 1 or claim 2.
- 14. (Withdrawn and Currently Amended) The method of treating insulin resistance which comprises administering to a host in need of such treatment an effective amount of a compound according to claim 1 or claim-2.
- 15. (Withdrawn and Currently Amended) The method of treating hyperlipidemia which comprises administering to a host in need of such treatment an effective amount of a compound according to claim 1 or claim 2.
- 16. (Withdrawn and Currently Amended) The method of treating coronary heart disease which comprises administering to a host in need of such treatment an effective amount of a compound according to claim 1 or claim 2.
- 17. (Withdrawn and Currently Amended) The method of treating multiple sclerosis which comprises administering to a host in need of such treatment an effective amount of a compound according to claim 1 or claim 2.
- 18. (Withdrawn and Currently Amended) The method of treating cancer which comprises administering to a host in need of such treatment an effective amount of a compound according to claim 1 or claim 2.
- 19. (Currently Amended) A compound according to claim 1 selected from the group consisting of:
- 2-{4-[4-(2,4-dioxothiazolidin-5-ylidenemethyl)-phenoxy]-phenyl}-3-p-tolylacrylic acid,
 2-{4-[4-(2,4-dioxothiazolidin-5-ylmethyl)-phenoxy]-phenyl}-3-p-tolylacrylic acid,



U.S. Patent Application No. 10/530,757

Amendment dated June 4, 2008

Page 15

5-[4-(2',4'-dimethoxybiphenyl-3-yloxy)-benzylidene]-thiazolidine-2,4-dione; and

5-[4-(3',5'-dimethoxybiphenyl-3-yloxy)-benzyl]-thiazolidine-2,4-dione

5-[4-(2',4'-Dimethoxybiphenyl-3-yloxy)-benzyl]-thiazolidine-2,4-dione,

together with a physiologically acceptable carrier therefore.

21. (Withdrawn and Currently Amended) A method for treating diabetes comprising: co-administering an effective amount of a compound of claim 1 or claim 2 and an agent selected from the group consisting of:

insulin or an insulin mimetic,
a sulfonylurea or other insulin secretagogue,
a thiazolidinedione,
a fibrate or other PPAR-alpha agonist,
a PPAR-delta agonist,
a biguanide,
a statin or other hydroxymethylglutaryl (HMG) CoA reductase inhibitor,
an alpha-glucosidase inhibitor,
a bile-acid binding resin,
apoA1,
niacin,
probucol,
and nicotinic acid.

22. (Withdrawn and Currently Amended) A method for treating inflammatory or immunological disease, comprising: co-administering an effective amount of a compound of claim 1 or claim 2 and an agent selected from the group consisting of:

```
a non-steroidal anti-inflammatory drug (NSAID),
a cyclooxygenase-2 inhibitor,
a corticosteroid or other immunosuppressive agent,
a disease-modifying antirheumatic drug (DMARD),
a TNF-alpha inhibitor,
other cytokine inhibitor,
other immune modulating agent,
and a narcotic agent.
```

23-24. (Cancelled)

- 25. (New) A compound according to claim 1, wherein X represents -S-; and X' represents >NH.
- 26. (New) A compound according to claim 25, wherein A independently is C_1 - C_{20} alkoxy and p is 1 or 2.
- 27. (New) A compound according to claim 26, wherein m, n, q, r and s are zero.
- 28. (New) A compound according to claim 27, wherein the bond identified by a is a single bond.
- 29. (New) A compound according to claim 28, wherein R" represents a hydrogen atom.